

Three-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies

Description

VF Series Three-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valves are specifically designed for a wide range of HVAC applications, including two-position and modulating control of hot, chilled, or condenser water, and 50/50 glycol solutions. These valves are also bidirectional, allowing positive shutoff with the flow in either direction. Three-way assemblies have two valves that are linked together and mounted on a flanged, cast-iron tee. Three-way configurations are available in sizes 2 in. through 8 in.

Refer to the *VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)* for important product application information.

Features

- low seating/unseating torques
- bubble-tight shutoff
- broad range of pre-assembled actuators

- compatible with all types of American National Standards Institute (ANSI) 125/150 slip-on and weld-neck flanges
- high-integrity components
- D-3000 Series pneumatic actuators available with or without a pneumatic positioner
- air supply pressure 20 psi minimum
- valve assemblies for on/off applications with valve actuator positioner, 30 psig maximum pressure rating
- valve assemblies for proportional applications standard with D-9502 valve actuator positioner, 25 psig maximum air pressure rating

Repair Information

If the VF Series Butterfly Valve Assembly fails to operate within its specifications, refer to the *VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)* for a list of repair parts available.



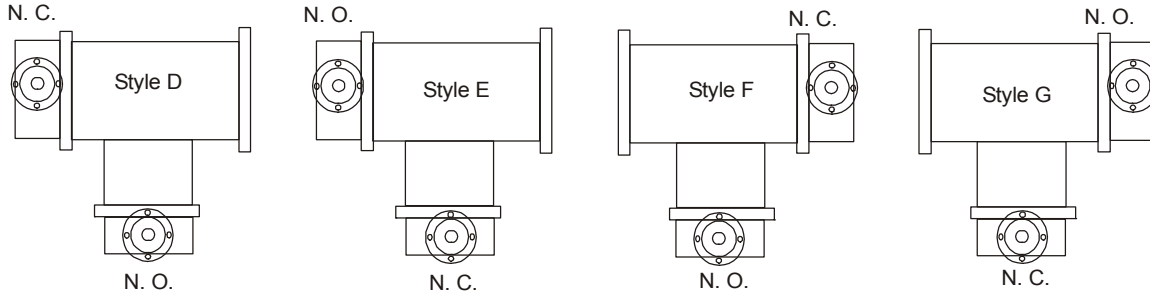
Three-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assembly

Selection Chart

Valve Code Number	Size, in.	Cv at 70°	Closeoff Pressure, psig	Actuator	
				On/Off Control	Proportional Control (with Positioner)
Three-Way Butterfly Valve Assemblies¹ — 175 psig Closeoff Pressure — Rated for 75 psig Dead-End Service					
VFD-020HB	2	84	175	VFD-020HB-001N	VFD-020HB-001A
VFD-025HB	2-1/2	163	175	VFD-025HB-002N	VFD-025HB-002A
VFD-030HB	3	267	175	VFD-030HB-002N	VFD-030HB-002A
VFD-040HB	4	496	175	VFD-040HB-003N	VFD-040HB-003A
VFD-050HB	5	775	175	VFD-050HB-003N	VFD-050HB-003A
VFD-060HB	6	1,025	175	VFD-060HB-005N ²	VFD-060HB-005A ²
Three-Way Butterfly Valve Assemblies¹ — 50 psig Closeoff Pressure — Not Rated for Dead-End Service					
VFD-040LB	4	496	50	VFD-040LB-002N	VFD-040LB-002A
VFD-050LB	5	775	50	VFD-050LB-003N	VFD-050LB-003A
VFD-060LB	6	1,025	50	VFD-060NB-002N	VFD-060NB-002A
VFD-080LB	8	1,862	50	VFD-080NB-002N ²	VFD-080NB-002A ²

1. Code numbers listed are three-way valves, style **D**. For styles **E**, **F**, or **G**, change the **D** in the third digit of the code number to the desired style. Example: VFE-xxxxx-xxxx, VFF-xxxxx-xxxx, or VFG-xxxxx-xxxx. See the following figure.
2. Valve assemblies have two actuators mounted in tandem.

Three-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies (Continued)



Three-Way Valve Body Styles

Technical Specifications

Three-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies ¹		
Service	Hot, Chilled, or Condenser Water, and 50/50 Glycol Solutions (Not Designed for Use in Steam Applications)	
Body Styles and Sizes	Three-Way, 2 in. through 8 in., Fully Lugged	
Fluid Temperature Limits	-20°F to 250°F (-29°C to 121°C)	
Body Pressure Rating	175 psig	
Maximum Fluid Velocity	30 ft/second (9 m/second)	
Rangeability	Refer to the <i>VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)</i> .	
Leakage	Bubble Tight	
Flow Characteristics	Modified Equal Percentage	
Materials	Body	Cast Iron, ASTM A126 Class B
	Tee (Three-Way Valves Only)	Cast Iron
	Disc	Ductile Iron, Nylon 11 Coated, ASTM A536 Gr 65-45-12
	Seat	Ethylene Propylene Diene Monomer (EPDM)
	Stem	416 Stainless Steel
Ambient Temperature Limits	Storage	-20°F to 150°F (-29°C to 66°C), Preferably 40°F to 85°F (4°C to 29°C)
	Operating	Spring-Return Actuator: -20°F to 131°F (-29°C to 55°C) Non-Spring-Return Actuator: -4°F to 122°F (-20°C to 50°C)

1. Refer to the *VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)* for actuator specifications.